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STEVENS DAVIS MILLER & MOSHER, LLP 1615 L STREET, NW SUITE 850 WASHINGTON, DC 20036			ABELSON, RONALD B	
			ART UNIT	PAPER NUMBER
			2666	

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/069,933

Applicant(s)

IDO ET AL.

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 August 2002 and 01 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-13 is/are rejected.
- 7) ☐ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/6/02 and 3/1/02</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Objections***

1. Claim 2 is objected to because of the following informalities: On lines 6 and 11, "are" should be replaced by "will be". Appropriate correction is required.

Claim 8 is objected to because of the following informalities: On lines 7 and 13, "are" should be replaced by "will be". Appropriate correction is required.

Claim 12 is objected to because of the following informalities: On lines 3 and 7, "are" should be replaced by "will be". Appropriate correction is required.

***Specification***

2. The disclosure is objected to because of the following informalities: On page 1 line 13, "sever" must be changed to "server".

Appropriate correction is required.

***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed.

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Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 2, 3, 8, and 12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9 of copending Application No. 10/070309 in view of Bushmitch (US 6,275,471).

This is a provisional obviousness-type double patenting rejection.

Regarding claims 2 and 8, claim 9 teaches a loss decision means, see loss detecting means.

Regarding claims 2, 8, and 12, claim 9 teaches a retransmission-request decision means, see retransmission request deciding means respectively.

Regarding claims 2, 8, and 12, although claim 9 teaches a retransmission request means for transmitting a retransmission-request (retransmission request for lost data is made, line 12), and the retransmission-request is based on the playback time and time at which packets will be received again / round trip time

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(lines 10-15), claim 9 does not explicitly teach transmitting the retransmission-request when the time at which the lost packets will be received again is before the playback time of the packets.

Bushmitch teaches retransmission is feasible when the time at which the lost packets will be received again is before the playback time of the packets (fig. 7 box 84, 86, col. 7 lines 26-32).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of claim 9 of copending Application No. 10/070309 by only sending the retransmission request if the packet requested will be received again before the playback time of the packet. This modification can be performed in software. This modification would benefit the system by only sending retransmission requests if the requested packet will be received before the time required.

Regarding claim 3, as previously shown the combination teaches the decision result is based on adding the round trip time to the time of transmission request and comparing it to the playback time (claim 9 lines 10-15) and retransmission when addition result is before the playback time (Bushmitch: fig. 7 box 84, 86, col. 7 lines 26-32).

Claim 4 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the combination of claim 9 of copending Application No. 10/070309 and Bushmitch (US 6,275,471) in view of Muller (US 6,483,804).

The combination is silent on packets indispensable for playback, and packets not indispensable for playback are distinguished, based on application information by which packets are played back; priority is set to the packets and retransmitting the lost packets when the lost packets are indispensable for playback.

Muller teaches packets indispensable for playback, and packets not indispensable for playback are distinguished, based on application information by which packets are played back; priority is set to the packets (packet's flow number, high priority, col. 109 line 54 - col. 110 line 5) and retransmitting the lost packets when the lost packets are indispensable for playback (file transfer connection, packets will need to be transmitted, col. 110 lines 1-5). The examiner corresponds the applicant's packets not indispensable and indispensable for

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playback with the reference's packets from an animated or streaming graphics application and a file transfer connection.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of claim 9 and Bushmitch by including within the receiver a flow database and flow database manager that would store the lost packets flow number and having the receiver only send a NACK message if the lost packet is of high priority. This modification can be performed according to the teachings of Muller. The suggestion for the modification is certain packets may be lost without seriously affecting the destination entity while certain packets need to be retransmitted if they are lost (Muller: col. 109 line 54 - col. 110 line 5). This modification would benefit the system by providing a method for defining packets based upon their need for retransmission in the event they are lost.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 6, 9, 10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Raychaudhuri (US 5,684,791).

Regarding claims 6, 9, 10, and 13, Raychaudhuri teaches a data transmitting apparatus (fig. 1 box 10, col. 4 lines 46-49).

Raychaudhuri teaches a transmitting means for transmitting packets (fig. 1 box 10: High Speed Radio).

Raychaudhuri teaches a receiving means for receiving retransmission request of said packets (retransmission schemes, col. 4 line 64 - col. 5 line 5).

Raychaudhuri teaches a decision means for deciding whether said packets which are requested to be retransmitted are packets indispensable for playback or not (CBR, ABR, col. 4 line 64- col. 5 line 5). Note, the applicant defines a packet indispensable for playback being of high priority, and a packet not indispensable for playback being a packet with low priority



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(spec: pg. 17 lines 1-4). The examiner corresponds the applicant's packets indispensable for playback and packets not indispensable for playback with the reference's CBR and ABR traffic respectively. Note, Raychaudhuri teaches no intrinsic time delay constraints need to be applied to error recovery for ABR service (col. 4 line 64 - col. 5 line 5) while CBR service requires a fixed time window for retransmission (col. 3 lines 28-35) and ABR bandwidth may be provided for retransmission of CBR traffic (col. 3 lines 39-48).

Raychaudhuri teaches when packets indispensable for playback are requested to be retransmitted, said transmission means performs priority retransmission of said packets (CBR, T seconds window during which retransmission may be attempted, col. 3 lines 28-35, on-demand ABR mode to retransmit erroneous CBR cells, col. 3 lines 39-40), and when packets not indispensable for playback are requested to be retransmitted, transmits said packets in the case of no transmission of other packets (no intrinsic time delay constraints need to be applied to error recovery for ABR service, col. 4 line 64 - col. 5 line 5).

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Regarding claim 9, in addition to the limitations previously requested, a base station (fig. 1 box 10, col. 4 lines 46-49).

Regarding claim 10, in addition to the limitations previously requested, a server apparatus (fig. 2 box 46, retrieves cells or transfers the received cells, col. 5 lines 21-24).

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 1, 7 and 11 rejected under 35 U.S.C. 102(e) as being anticipated by Welin (US 6,975,629).

Regarding claims 1 and 7, Welin teaches a buffer which preserves received packet data (fig. 14 box 1431, col. 31 lines 40-42).

Welin teaches a conversion means for reordering the packets according to the playback order of said packets (reordering according to sequence number, col. 31 lines 45-48).

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Welin teaches a decision means for deciding whether the received time of said packets is before or after the playback time of said packets (fig. 7, time stamp, each packet must meet its deadline or be thrown away, col. 3 lines 6-10).

Welin teaches a playback means for fetching only packets received at the time previous said playback time from said buffer, based on said decision result (fig. 7, time stamp, each packet must meet its deadline or be thrown away, col. 3 lines 6-10).

Welin teaches regenerating / converting analog to digital the packets according to the playback order (fig. 1 box 1161 element D/A, col. 6 lines 43-46).

Regarding claim 11, Welin teaches received packets are reordered according to a playback order, and preserved (reordering according to sequence number, col. 31 lines 45-48).

Welin teaches packets, among said received packets, whose received time is before the playback time of said packets are played back (fig. 7, time stamp, each packet must meet its deadline or be thrown away, col. 3 lines 6-10).

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***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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10. Claims 2, 3, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushmitch (US 6,275,471) in view of Abrol (US 2005/0117521).

Regarding claims 2 and 8, Bushmitch teaches a loss decision means for deciding whether there are lost packets in received packets or not (fig. 7 box 76, out of sequence, col. 7 lines 13-14).

Regarding claims 2, 8, and 12, Bushmitch teaches a retransmission-request decision means for deciding whether said playback time is before or after the reception time at which said lost packets will be received again after retransmission of said lost packets is requested (fig. 7 box 84, 86, col. 7 lines 26-32).

Regarding claims 2, 8, and 12, Bushmitch teaches a retransmission-request means for transmitting retransmission-request of said packets (fig. 7 box 80, NACK, col. 7 lines 19-25).

Regarding claims 2, 8, and 12, although Bushmitch teaches a decision means for deciding whether said playback time is before or after the reception time at which said lost packets will be received again after retransmission of said lost packets is requested and a retransmission-request means, the reference does

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not explicitly teach a retransmission-request means for transmitting a retransmission-request of said packets when the time at which said packets will be received again is before the playback time of said packets according to the decision results. Note, Bushmitch teaches the receiver determining the remaining transmission time and sending this value and a NACK to the sender (fig. 7 box 78, 80, col. 7 lines 16-25). The sender then performs a decision process by comparing the value to the round trip time 'RTT'. If the value is less than 'RTT' than retransmission occurs (fig. 7 box 84, 86, col. 7 lines 26-29).

Abrol teaches a method to facilitate for the decision process being performed at the receiver (establishing a round-trip time 'RTT' to be used by subscriber station for NAK, [0032]).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Bushmitch by having the sender and receiver exchange updates on the RTT and having the receiver only send a NACK message if the remaining transmission time exceeds the RTT. The process of the sender and receiver exchanging updates on the RTT can be performed according to the teachings of Abrol. This modification would benefit the system since a NACK message will only be sent if sufficient time exists for retransmission. In the system of

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Bushmitch NACK messages are sent when sufficient retransmission time does not exist.

Regarding claim 3, the combination teaches deciding whether an addition result obtained by adding round-trip-time, from time at which retransmission request of said lost packets are transmitted to a transmission apparatus transmitting packets, to time at which said packets to be retransmitted are received, to time at which retransmission of said packets is requested is before the playback time of said packets to be played back or not (Bushmitch: fig. 7 box 84, 86, compares estimated RTT with received remaining transmission time, col. 7 lines 26-30) and instructs the retransmission-request means to retransmit said lost packets, when said addition result is before said playback time (Bushmitch: fig. 7 box 86, 88, if remaining transmission time exceed RTT, then the missing packet is retransmitted, col. 7 lines 30-32).

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bushmitch and Abrol as applied to claim 2 above, and further in view of Muller (US 6,483,804).

Although the combination teaches a retransmission-request decision means instructs the retransmission-request means to retransmit lost packets, the combination is silent on packets indispensable for playback, and packets not indispensable for playback are distinguished, based on application information by which packets are played back; priority is set to the packets; and the retransmission-request decision means instructs the retransmission-request means to retransmit the lost packets when the lost packets are indispensable for the playback.

Muller teaches packets indispensable for playback, and packets not indispensable for playback are distinguished, based on application information by which packets are played back; priority is set to the packets (packet's flow number, high priority, col. 109 line 54 - col. 110 line 5) and retransmitting the lost packets when the lost packets are indispensable for playback (file transfer connection, packets will need to be transmitted, col. 110 lines 1-5). The examiner corresponds the applicant's packets not indispensable and indispensable for playback with the reference's packets from an animated or streaming graphics application and a file transfer connection.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Bushmitch and Abrol by including within the receiver a flow



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database and flow database manager that would store the lost packets flow number and having the receiver only send a NACK message if the lost packet is of high priority. This modification can be performed according to the teachings of Muller. The suggestion for the modification is certain packets may be lost without seriously affecting the destination entity while certain packets need to be retransmitted if they are lost (Muller: col. 109 line 54 - col. 110 line 5). This modification would benefit the system by providing a method for defining packets based upon their need for retransmission in the event they are lost.

#### ***Allowable Subject Matter***

12. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald

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Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Ra*  
Ronald Abelson  
Examiner  
Art Unit 2666

*Ron Abelson*

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